CLAIMS

1. . A stretchable collagen material.

5   2.   The stretchable collagen material according to claim 1, wherein the collagen is derived from fish.

3.   The stretchable collagen material according to claim 1 or 2, wherein the collagen is cross-linked by using a cross-linking

10   agent.

4.   The stretchable collagen material according to claim 3, wherein the cross-linking agent is a water-soluble carbodiimide.

15   5.   A method for manufacturing a stretchable collagen material including a step in which gel comprising collagen fiber cross-linked by using a cross-linking agent is subjected to a thermal treatment.

20   6.   The method for manufacturing a stretchable collagen material according to claim 5, including a step in which the gel is prepared by mixing of a collagen solution with a solvent which induces fiber formation and a solution of cross-linking agent.

25   7.   The method for manufacturing a stretchable collagen material according to claim 5 or 6, including a step in which the gel is prepared by cross-linking of fibers by a cross-linking agent during the fibril formation process of collagen.

8.   The method for manufacturing a stretchable collagen material according to any one of claims 5 to 7, wherein fish-derived collagen is used.

5   9.   The method for manufacturing a stretchable collagen material according to claim 6, wherein the solvent inducing fiber formation is an aqueous solution of salt having a buffering ability selected from phosphate, acetate, carbonate and Tris.

10   10.   The method for manufacturing a stretchable collagen material according to claim 6, wherein a solution in which a water-soluble carbodiimide is dissolved in the solvent inducing fiber formation is used as the cross-linking agent.

15   11.   The method for manufacturing a stretchable collagen material according to claim 6, wherein the collagen concentration in the collagen solution is within a range of 0.01 to 3.0 (w/v)%.

20   12.   The method for manufacturing a stretchable collagen material according to claim 6, wherein the concentration of the cross-linking agent used is within a range of 15 mM to 80 mM as the final concentration in collagen gel before the thermal treatment.

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13.   The method for manufacturing a stretchable collagen material according to claim 7, wherein mixing of the collagen solution with the solvent inducing fiber formation and the cross-linking agent solution is conducted at a temperature not

higher than the temperature of the denaturing temperature of collagen plus 5°C.

14.   The method for manufacturing a stretchable collagen material according to claim 7, wherein the gel is prepared by mixing the collagen solution, the solvent inducing fiber formation and the cross-linking agent solution and then conducting incubation at least for one hour at a temperature not higher than the temperature of the denaturing temperature of collagen plus 5°C.

15.   The method for manufacturing a stretchable collagen material according to any one of claims 5 to 14, wherein the temperature for the thermal treatment is within a range of 30 to 200°C.

16.   A stretchable collagen material which is manufactured by the method described in any one of claims 5 to 15.

17.   The stretchable collagen material mentioned in any one of claims 1 to 4 and 16, which is used as a cell carrier for giving elastic stimuli to incubated cells.

18.   A cell carrier or a medical material comprising the stretchable collagen material mentioned in any one of claims 1 to 4 and 16.

19.   A basic material for artificial blood vessel comprising the stretchable collagen material mentioned in any one of claims

1 to 4 and 16.

20.   Collagen used for a subcutaneous implant in cosmetic
surgery, comprising the stretchable collagen material described
5   in any one of claims 1 to 4 and 16.

21.   A basic material for artificial tendon, comprising the
stretchable collagen material described in any one of claims 1
to 4 and 16.

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22.   An artificial dura matter, comprising the stretchable
collagen material described in any one of claims 1 to 4 and 16.